

Amendments to the Specification:

Please replace the paragraph starting with "Now referring to FIGURE 12" beginning on page 9, lines 25-30 and ending on page 10, line 4, with the following amended paragraph:

a1
Now referring to FIGURE 12, exemplary sets of the vertical-stripe sensitive interpolation filter coefficients are illustrated in a table for the use in one preferred embodiment of the system for correcting image data including abrupt intensity gradient according to the current invention. Each row specifies one of the four patterns or arrangements of the color filters depending upon the location of a 3 x 3 unit within the 4 x 4 CCD unit. Each column specifies one of the primary colors RGB. Thus, a combination of the filter pattern and the primary color specifies one of the twelve sets of the vertical-stripe sensitive interpolation filter coefficients. In each set of vertical-stripe sensitive interpolation filter coefficients, the sum of the coefficients in the right and left columns equals that in the middle column. The above

Please replace the paragraph starting with "A RGB converter" beginning on page 14, lines 23-30 and ending on page 15, line 4, with the following amended paragraph inclusive of equation (4):

a2
A RGB converter unit 14 generates RGB signals by matrix operation between the results of the above channels Ch0-Ch3 and the selected filter coefficients from the conversion coefficient memory 12 as shown in the following equation (4):

$$\begin{aligned} r &= r0Ch0 + r1Ch1 + r2Ch2 + r3Ch3 \\ g &= g0Ch0 + g1Ch1 + g2Ch2 + g3Ch3 \\ b &= b0Ch0 + b1Ch1 + b2Ch2 + b3Ch3 \end{aligned} \quad (4)$$

By substituting the above ~~rgb~~-RGB matrix with the horizontally sensitive interpolation filter coefficient matrix as shown in equation (5), the RGB signals are generated by the following equation (7):

Please replace the paragraph starting with "By substituting" beginning on page 15, lines 14-25 with the following amended paragraph inclusive of equation (8):

a3

By substituting the above ~~rgb~~RGB matrix with the vertically sensitive interpolation filter coefficient matrix as shown in equation (6), the RGB signals are generated by the following equation (8):

$$\begin{bmatrix} r0 & r1 & r2 & r3 \\ g0 & g1 & g2 & g3 \\ b0 & b1 & b2 & b3 \end{bmatrix} = \begin{bmatrix} 1/8 & 1/2 & 0 & -1/2 \\ 1/8 & 0 & 0 & 1/2 \\ -1/8 & 0 & 1/2 & 1/2 \end{bmatrix} \quad (6)$$